

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-5 allowed.
2. The following is an examiner's statement of reasons for allowance:
3. The closest prior art the Examiner has been able to locate are Dunne (US PG-PUB 2005/0075962), Sperandeo (US PG-PUB 2005/0114251), and Applicant admission of prior art. Applicant admission of prior art teaches that both (1) calculating the measurements of average and standard deviation of periodic returns, as derived from data of periodic returns and (2) calculating a measurement of standard differential return were known in the art at the time of invention. Dunne teaches analyzing investments using a plurality of contiguous time periods (see paragraph 31). Sperandeo teaches determining whether the investment performance of assets is cross-cyclical through a range of economic cycles (see paragraph 19); and determining the correlation between the performance of an asset and the performance of the general debt and equity markets (see paragraphs 1-4). Dunne, Sperandeo, and Applicant admission of prior art, whether taken alone or in combination, fail to disclose essential elements set forth by the Applicant in independent claim 1. The prior art does not teach finding the correlation, performance and risk axes of the population as revealed during the analysis period, calculating dividing lines for subsequent evaluation period populations of the asset class, and using the groupings so identified to assign a value to each of the members of the asset class.

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4. The following is a formal statement of reasons for allowance:

5. Claim 1 is allowed because the best prior art of record, Dunne, Sperandeo, and Applicant admission of prior art, alone or in combination, neither discloses nor fairly suggests the limitations, in a computer-implemented method, for selecting investments from within an asset-class population of book-valued investments from processes based on differences found in investment performance among the members of that population for a prior evaluation time period to a process that selects investments from within an asset-class population of book-valued investments based on the characteristic differences found in investment performance among the members of that population for a plurality of time periods immediately following a plurality of prior evaluation time periods and reflective of the outcome of selecting for those member investments from the analysis of the distribution of investment performance of that member population generated in those period evaluation periods, that when plotted on a mean-variance graph of that performance distribution, results in the identification of a contiguous grouping of investments resident at a specific and consistent location within that distribution of investment performance that asset class population throughout the plurality of evaluation periods whose future relative investment performance for the plurality of a subsequent selection period is found to be consistently superior to the average investment performance for the asset-class for those subsequent selection time periods, comprising the steps of:

acquiring, via the computer, and storing in a storage device of a computer, as a data-record, the measurement of periodic investment returns for each member of an asset-class population for an analysis period comprised of a plurality of contiguous evaluation and selection time periods;

verifying, via the computer, the adequacy of the data acquired in that it produces an analysis period of a length of time to comprise a plurality of contiguous evaluation and selection time periods inclusive of at least one full market cycle;

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defining, via the computer, the evaluation time periods and the selection time periods of the analysis period to be of equal length, co-continuous and of longer length than that of the period chosen for the calculation of periodic returns;

calculating, via the computer, and appending to the data-record, stored in the storage device, for each asset-class population member the measurements of the average and standard deviation of periodic returns, as derived from the data of periodic returns for each evaluation and selection period;

calculating, via the computer, and appending to the data-record, stored in the storage device, of each asset-class population member the measurements of population-averages for the average and standard deviation of periodic returns of the members of the asset-class for each evaluation and selection period;

calculating, via the computer, and appending to the data-record, stored in the storage device, of each asset-class population member the measurements of market and differential returns, the market return formulated as the average of average returns for the asset-class population at the point of standard deviation of periodic returns for the population member and the differential return formulated as the difference between the member's average return and the average of average returns for the asset-class population at the point of standard deviation of periodic returns for the population member, as plotted as the vertical difference between the two points on its means-variance graph, for each selection period;

calculating, via the computer, and appending to the data-record, stored in the storage device, of each asset-class population member the measurement of standard differential return for each selection period, as its normalized value when calculated relative to the distribution characteristics of its asset-class population for that selection period, as formulated as the measurement of a standard normal cumulative distribution;

plotting, via the computer, the distribution of investment performance for the asset-class population of each evaluation period within the analysis period as the measurements of the average and standard deviation of periodic investment returns for each member of that asset-class population on a mean-variance graph and retaining the record of points of that distribution using the computer;

bisecting the investment performance distribution of each evaluation period asset class populations into two halves, via the computer, by a division line formulated as a straight line of equal slope for each population as plotted on its mean-variance graph, through a point of population-average for the standard deviation of periodic returns and appending an identifier to the data-record of each evaluation period asset-class population members, via the computer, that references their inclusion into one of the bisected halves on the plotted graph;

calculating, via the computer, and appending to the data-record, stored in the storage device, for each evaluation period asset-class population member the measurement of the average of standardized differential returns for the population of each bisected-half for each selection period subsequent to and immediately following each evaluation period;

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calculating, via the computer, the correlation coefficient of the average standardized differential return between each bisected-half for the plurality of evaluation periods;

determining, via the computer, and storing as a data-record in the storage device, the characteristic correlation-axis for the asset class population as the slope of the bisection through the point of population-average for the standard deviation of periodic returns for the plurality of evaluation periods that produces the lowest correlation coefficient of the average standardized differential return between each bisected half for the plurality of evaluation periods;

bisecting, via the computer, the investment performance distribution of the evaluation period asset class population into two halves by a division line formulated as a straight line of equal slope for each population as plotted on its mean-variance graph, through a point of population-average for average return and appending an identifier to the data-record of each evaluation period asset-class population member referencing their inclusion into one of the bisected halves; calculating, via the computer, and appending to the data-record in the storage device, of each evaluation period asset-class population member the measurement of the average of standardized differential returns for the population of each bisected-half for each selection period subsequent to and immediately following each evaluation period for each evaluation period;

determining, via the computer, and storing as a data-record in the storage device the characteristic performance-axis for the asset class population as the slope of the bisection through the point of population-average for average return for the plurality of evaluation periods that produces the greatest difference of the average standardized differential return between each bisected-half for the plurality of evaluation periods;

calculating, via the computer, measurements of the average and standard deviation of periodic returns and population-averages of those average and standard deviation of periodic returns for the members of an asset class population formulated under the same criteria as the asset class populations of the analysis period and for an evaluation period of equal length and subsequent to the evaluation periods of that class for the analysis period;

plotting, via the computer, the distribution of investment performance for this asset-class population of an evaluation period subsequent to the analysis period as the measurements of the average and standard deviation of periodic investment returns for each member of that asset-class population on a mean-variance graph and retaining, via the computer, the record of points of that distribution in the storage device;

segmenting, via the computer, the performance distribution for this asset-class population of an evaluation period subsequent to the analysis period into quartiles and utilizing, as segmentation criteria, the measurements of characteristic correlation-axis and characteristic performance-axis found for the asset-class populations of the analysis period;

appending, via the computer, to the data-record in the storage device, of each member of this asset-class population of an evaluation period subsequent to the analysis period a reference identifying their inclusion into one of the quartiles on the plotted graph for the evaluation period;

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calculating, via the computer, averages of the average and standard deviation of periodic returns for the populations of each quartile group of this asset-class of an evaluation period subsequent to the analysis period; and

selecting, via the computer, for investment in a selection period immediately following the term of an evaluation period and occurring subsequent to the analysis period those members within the quartile group that are identified within the evaluation periods of the analysis period as generating the highest average return for the lowest standard deviation of periodic returns for the selection periods within that analysis period.

6. Claims 2-5 are allowed by virtue of their dependence on allowed claim 1.
7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC T. WONG whose telephone number is 571-270-3405. The examiner can normally be reached on Monday-Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James A. Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/
Supervisory Patent Examiner, Art Unit 3693

ERIC T. WONG
Examiner
Art Unit 3693

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